

In the Claims

Claim 1 (cancelled) Claims 2 and 3 (cancelled)

C1
Claim 4 (currently amended) [The] An isolated nucleic acid fragment [of Claim 1] comprising a nucleic acid sequence that is capable of hybridizing to the sequence set forth in [of] SEQ ID NO:120 under stringent conditions and is useful in increasing lysine content in a plant cell.

Claim 5 (previously amended) The nucleic acid fragment of [Claim 1] Claim 4 wherein the nucleic acid sequence encodes a polypeptide as set forth in SEQ ID NO:122.

C2
Claim 6 (currently amended) A chimeric gene comprising the isolated nucleic acid fragment of [Claim 1] Claim 4 [encoding lysine ketoglutarate reductase or a functional subsequence thereof,] operably linked to suitable seed-specific regulatory sequences wherein a plant transformed with said chimeric gene has seeds with increase lysine content compared to seeds obtained from untransformed plants.

Claim 7 (currently amended) The chimeric gene according to Claim 6 wherein the isolated nucleic acid fragment comprises [a nucleic acid sequence or functional subsequence of] all or a part of the nucleic acid sequence set forth in SEQ ID NO:120.

Claim 8 (withdrawn)

C3
Claim 9 (currently amended) A plant cell transformed with the chimeric gene of Claim 6 or 7 wherein said transformed plant cell has reduced [lysine ketoglutarate reductase] lysine ketoglutarate reductase/saccharopine dehydrogenase activity.

Claim 10 (withdrawn)

Claim 11 (previously amended) A plant seed transformed with the chimeric gene of claim 6 or 7 wherein said transformed plant seed has an increased lysine content compared to seed obtained from an untransformed plant.

Claim 12 (original) The plant cell according to Claim 9 wherein said plant cell is selected from the group of plants consisting of *Arabidopsis*, corn, soybean, rapeseed, wheat and rice.

Claim 13 (original) The plant seed according to Claim 11 wherein said plant cell is selected from the group of plants consisting of *Arabidopsis*, corn, soybean, rapeseed, wheat and rice.

Claim 14 (previously amended) A method for [reducing lysine ketoglutarate reductase activity] increasing lysine content in a plant seed which comprises:

- (a) transforming plant cells with the chimeric gene of claim 6 or 7;
- (b) regenerating fertile mature plants from the transformed plant cells obtained from step (a) under conditions suitable to obtain seeds;
- (c) screening progeny seed of step (b) for increased lysine content; and
- (d) selecting those lines whose seeds have increased lysine content.

Claim 15 (original) Seed obtained from the plant of Claim 14.

Claims 16-20 (withdrawn)

Claims 21-26 (~~cancelled~~)